

# HPLC Application

ID No.: 21960

## EPA 554: Carbonyl Compounds in Drinking Water

**Column:** Kinetex<sup>®</sup> 5 $\mu$ m C18 100 Å, LC Column 150 x 4.6 mm, Ea

**Dimensions:** 150 x 4.6 mm ID

**Order No:** 00F-4601-E0

**Elution Type:** Gradient

**Eluent A:** Water

**Eluent B:** Acetonitrile

Gradient Profile:	Step No.	Time (min)	Pct A	Pct B
	1	0	50	50
	2	15	0	100
	3	20	0	100

**Flow Rate:** 2 mL/min

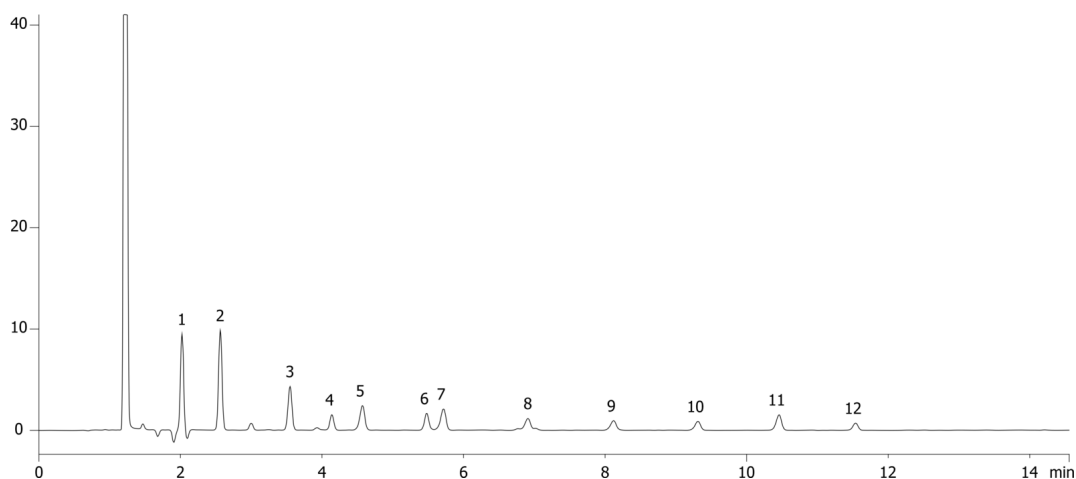
**Col. Temp.:** 30 °C

**Detection:** UV-Vis Abs.-Variable Wave.(UV) @ 360 nm (ambient)

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Products used in this application:



## EPA 554: Carbonyl Compounds in Drinking Water

### ANALYTES:

- 1 Formaldehyde
- 2 Acetaldehyde
- 3 Propanal
- 4 Crotonaldehyde
- 5 Butanal
- 6 Cyclohexanone
- 7 Pentanal
- 8 Hexanal
- 9 Heptanal
- 10 Octanal
- 11 Nonanal
- 12 Decanal



# Sample Preparation Details

for HPLC Application ID No.: 21960

## EPA 554: Carbonyl Compounds in Drinking Water

### PRODUCT DESCRIPTION:

Strata® C18-E (55 µm, 70 Å), 500 mg / 6 mL, Tubes , 30/Pk

Order No.: 8B-S001-HCH

### SOLID PHASE EXTRACTION (SPE) PROCEDURE:

**Note:** The solvent volumes shown below are for a 500 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

#### Condition:

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#### Load:

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#### Wash:

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#### Dry:

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#### Elute:

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### Final Prep and Analysis:

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After elution Q.S. to 10 mL with ethanol before injection

Inject: 5 µL on HPLC UV-Vis Abs.-Variable Wave.(UV) @ 360 nm (ambient)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Formaldehyde	250				
2 Acetaldehyde	250				
3 Propanal	250				
4 Crotonaldehyde	250				
5 Butanal	250				
6 Cyclohexanone	250				
7 Pentanal	250				
8 Hexanal	250				
9 Heptanal	250				
10 Octanal	250				
11 Nonanal	250				
12 Decanal	250				

**Note:** This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals.  
Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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